

# WATER QUALITY MEMORANDUM

## Utah Coal Regulatory Program

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October 13, 2010

TO: Internal File

THRU: Daron R. Haddock, Permit Supervisor *DS 14 Oct 2010*

FROM: April A. Abate, Environmental Scientist II *QAA 10-14-2010*

RE: 2010 First Quarter Water Monitoring, Canyon Fuel Company, LLC, SUFCO Mine, C/041/0002, WQ10-01, Task ID #3486

The SUFCO Mine is an operating longwall mine. Current operations are in the Quitchupah and Muddy Tracts. Water monitoring requirements can be found in Section 7.3.1.2 of the MRP, especially Tables 7-2, 7-3, 7-4, 7-5, and 7-5A. Page 7-48 contains the important statement that (non Box-Canyon, non-UPDES) "monitoring sites are sampled three times per year," meaning the second, third, and fourth quarters.

1. Was data submitted for all of the MRP required sites? YES ☒ NO ☐

### ***Springs***

*The MRP requires the Permittee to monitor 25 springs during the second, third, and fourth quarter as per Table 7-2. Some require full laboratory analysis according to Table 7-4, while others simply require field measurements.*

None of the spring locations were monitored during the 1<sup>st</sup> quarter of 2010.

### ***Streams***

*The MRP requires the Permittee to monitor 20 streams during the second, third and fourth quarter as per Table 7-2.*

None of the stream locations were monitored during the 1<sup>st</sup> quarter of 2010.

### ***Wells***

*The MRP requires the Permittee to monitor water levels for 4 wells during the second, third and fourth quarter.*

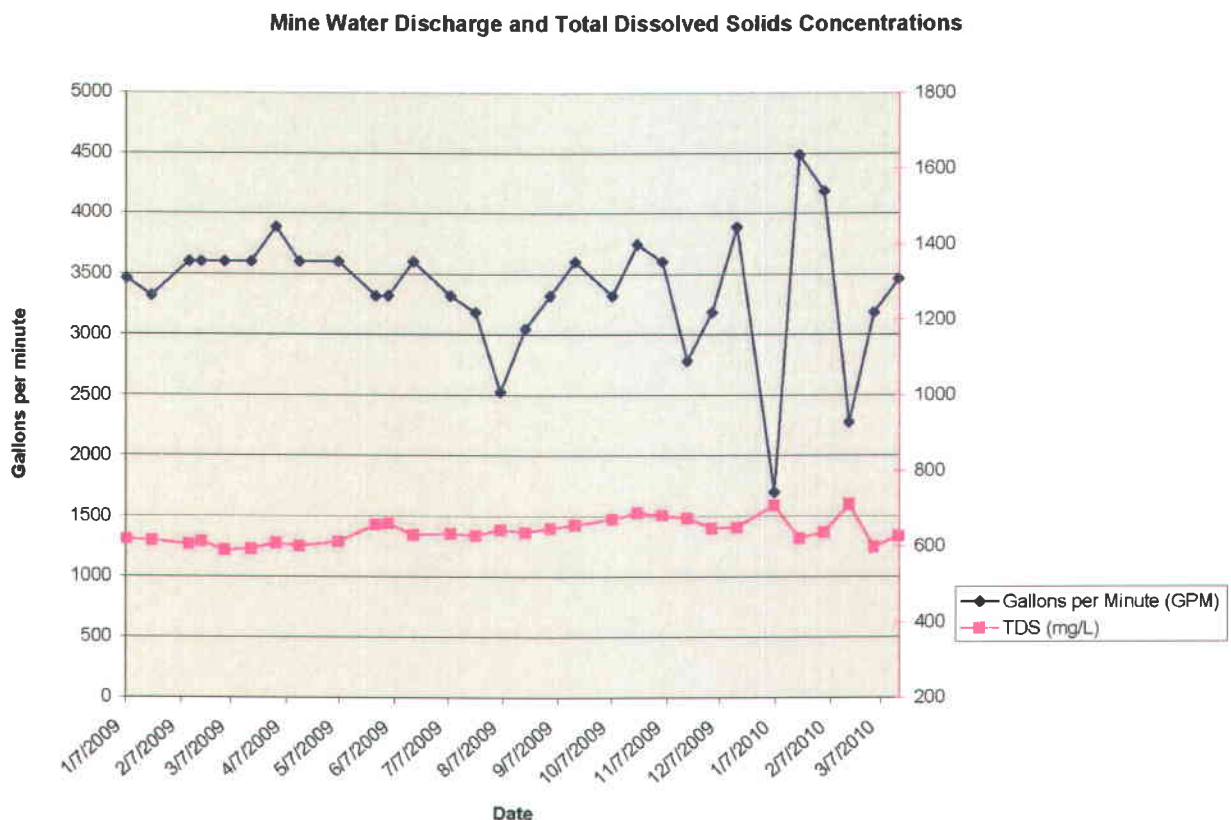
None of the wells were gauged during the first quarter of 2010.

Additional wells not listed in the MRP associated with the waste rock disposal site are in the database including: WRDS-B3, WRDS-B5, WRDS-B6, WRDS-B8, WRDS-B9, WRDS-B6 and WRDS-B8. None of these wells were sampled for analytical parameters during the first quarter of 2010.

### UPDES

*The UPDES Permit/MRP require bi-weekly monitoring of 3 outfalls: 001, mine water discharge to Spring Canyon; 002, sedimentation pond discharge to Spring Canyon; and 003A, the mine water discharge to the North Fork of Quitchupah Creek.*

The Permittee submitted all required samples for the UPDES sites. Outfall 001 reported no flow this quarter. The mine water discharge outfall location averaged a flow of 3,255 gallons per minute (gpm) and an average Total Dissolved Solids (TDS) concentration of 634 mg/L this quarter. The chart below presents a more historical representation of mine water discharge and its relationship to TDS concentrations in the mine water.



**2. Were all required parameters reported for each site?** YES ☒ NO ☐

**3. Were any irregularities found in the data?** YES ☒ NO ☐

UPDES sample UT0022918-002: SED POND Q TO E SPRING CYN was shown as being above the daily maximum limitation for Total Suspended Solids (TSS) on February 3, 2010 at a concentration of 90 mg/L. The daily maximum limit is 70 mg/L. It should be noted that subsequent sampling events showed that the TSS values for this sample in the remainder of the quarter did comply with the daily maximum limits for TSS.

**4. On what date does the MRP require a five-year re-sampling of baseline water data.**

There is no commitment in the MRP to resample for baseline parameters.

**5. Based on your review, what further actions, if any, do you recommend?**

As a general comment, the existing water monitoring plan in the MRP contains several outdated references to sampling protocols that were performed in the 1990s. The Division recommends that the water monitoring plan be updated in the near future that is more reflective of current sampling protocols (i.e. addressing the U.S. Forest Service sampling locations in the MRP). An amendment to update the water monitoring plan should be submitted once the West Lease modification tract is approved by the Division.